



The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- RARS meets for a monthly dinner on the First Tuesday of each month. Its at 6:30PM at the Golden Corral Restaurant, 6129 Glenwood Ave., Raleigh.



PUBLIC SERVICE EVENTS

Interested in helping? Visit <http://www.rars.org/public-service.php>

frequently for our 2017 ham public service schedule.

RARS General Meeting

Topic: Dxpedition to St. Paul Island, Aug 2016

Presenters: Will Roberts, AA4NC and
Murray Adams, WA4DAN

Date: April 11, 2017

Time: Meeting at 7:30 p.m.

Informal gathering and refreshments from 7 - 7:30 p.m.

Where: Ridge Road Baptist Church. 2011 Ridge Rd., Raleigh
New HAM / Elmer meeting, 6:00 p.m. before member meeting

Tadd Torborg, KA2DEW, Elmer Coordinator

[Click here for more information.](#)

RARS President's Message

Spring has sprung and pollen season is upon us. This is your last chance to work on those dipoles and other wire antennas before the summer foliage returns. Make a list of the items you will need to make those antennas new again because RARSfest is right around the corner. It's also a good time to clean out those unused items, take them to the RARS Table at RARSfest, and turn them into money to buy new stuff. And while you're there maybe you can find time to help the Admissions or Security team for a shift. And don't forget the RARS Social on Friday evening. It is open to all

[Continued on page 3](#)

RARS Officers

PRESIDENT

Dennis Keith
NC4DK
919-608-1301
NC4DK@yahoo.net

VICE PRESIDENT

Tom Lewis
N4TL
919-870-9342
N4TL2@yahoo.com

SECRETARY

Bob Chapman
NC1X
919-870-6385
NC1X@nc.rr.com

TREASURER

Greg Seamster
KE4PAX
919-859-0029
KE4PAX@arrl.net



The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website (www.rars.org).

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the third Friday of the preceding month. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

For Your Information

RARS General Meeting

Date: Second Tuesday of each month

Location: Ridge Road Baptist Church 2011
Ridge Road Raleigh, NC, 27607

Time: People begin arriving at 7 p.m. The meeting officially begins at 7:30 p.m.

RARS Monthly Dinner

All members and guests are welcome to the monthly (first Tuesday) RARS Supper, 6:30PM, at the Golden Corral Restaurant, 6129 Glenwood Ave., Raleigh. Informal and Dutch, just bring your appetite and best rag to chew. 73, Chuck, K4HF

RARS Repeaters in Raleigh

146.64-, 444.525+ (82.5) and

145.13- (82.5), (82.5 is the tone freq)

Join us for the nightly RARS net at 8 p.m. on the 146.640 repeater. All hams holding a Technician class license or higher are invited to check in. We welcome both RARS and non-RARS members to the net.

There is a net Listing on the RARS website click here. <http://www.rars.org/nets.php>

VE Testing

The RARS VEs will accept walk-in testing in February, May, August and November at 5:30PM, prior to RARS membership meetings at Ridge Road Baptist Church; the RARSfest in April; the Cary Swapfest in July; the JARS-Fest in November; and following RARS license classes. Please bring a photo ID, your original and a copy of your current license, your \$14 exam fee, and any valid CSCEs that prove passing elements beyond that of your current license. Visit www.rars.org for more information.

President's Message continued

RARS members. The club provides the entrees and beverages for the meal. Members are asked to bring a side dish or dessert, preferably divided into two disposable containers, to add to the menu.

Everyone knows that RARSfest is a great opportunity to buy, sell, and trade ham equipment and meet new and old friends. Many may not be aware of the educational aspect of RARSfest. In addition to VE testing for those who wish to become licensed or to upgrade to a new license class, there are forums containing valuable information on activities such as, Skywarn Spotter Training, activities for new hams, ham radio's second century by Bob Inderbitzen, NQ1R, ARRL Marketing Manager, as well as talks by ARRL state and section managers.

I hope to see all of you at RARSfest. If you see me, please stop and speak, I'll be the one wearing the hat with my callsign on it.

And don't forget that Field Day is just around the corner.

73,

Dennis Keith

NC4DK

RARS Birthdays

Craig	W4CRG	04/01
Paul	KO4LZ	04/01
Ray	K2HYD	04/02
Roger	KB4FEU	04/02
Rob	KM4MLY	04/03
Preston	KM4RJR	04/03
Bob	W4TTX	04/03
Garry	KM4MMC	04/07
Henry	WB2AGA	04/08
Julie	KT4JR	04/09
Dennis	NC4DK	04/10
Scott	KG4ZYA	04/11
Bob	K2QJ	04/11
Mike	KK4QMA	04/12
Ian	N0IAN	04/13
James	N7JLS	04/15
Thomas	N4IZE	04/15
Cindy	KB8LVU	04/15
Albert	N4AGG	04/16
Dick	KB1HIW	04/17
Ryan	N7RYN	04/17
Kirk	KI4RK	04/19
John	W4WWD	04/20
Fin	NC4FG	04/22
Joanne	AK4RJ	04/23
Dave	KG4OPZ	04/24
Don	WA4AVU	04/26
Charlie	WA4OSS	04/27
Jay	KM4TCM	04/28
Tad	K3TD	04/28
Stan	WA2KQY	04/29
John	NC4JP	04/29

Future Hamfests

A full list of Hamfests can be found at the [ARRL website](http://www.arrl.org).

04/15/2017 | [Roanoke Division Convention \(Raleigh Hamfest\)](http://www.arrl.org)

Location: Raleigh, NC

Type: ARRL Convention

Sponsor: Raleigh Amateur Radio Society

Website: <http://rars.org/rarsfest>

04/28/2017 | [2017 SVHFS Conference](http://www.svhfs.org)

Location: Charlotte, NC

Type: ARRL Convention

Sponsor: Southeastern VHF Society

Website: <http://svhfs.org>

Hamfest/Convention

05/27/2017 | [DurHamFest](http://www.dfma.org)

Location: Durham, NC

Type: ARRL Hamfest

Sponsor: Durham FM Association

Website: <http://dfma.org/>

New Members

Tara Goodwin	KM4ZSZ
Robert Walker	K4WWR
Peter Kean	K2AXI
Cliff Davis	KK4MPA

March 14 RARS Meeting

RARS President Dennis Keith, NC4DK, presented the following awards to various RARS members. Not all recipients were present for pictures



Raymond LeFrancois NC4OO, Murray Merner K4MHM, Dennis Mason WZ0Q,
Bill Mars AK4BL, Joanne Mars, AA3N

Certificates:

Raymond LeFrancois, NC4OO – In appreciation for tirelessly serving as the RARS Good Will Ambassador.

Murray Merner, K4MHM – In appreciation for heading the RARS Shirt/Patch Project 2015 – 2016

Dennis Mason, WZ0Q – In appreciation for serving on the RARSfest Team for several years

Bill Mars, AK4BL – In appreciation as RARS Director at Large 2013 – 2016

Joanne Mars, AA3N – In appreciation as RARS Food Service Chairperson 2013 - 2016

Dennis Keith, NC4DK – In appreciation for serving as the RARS Field Day Chairman for 2014-2016
(he should have been in the picture).

March 2017 RARS AWARDS recipients continued

Certificates: These recipients were not present for pictures.

Joe, WA4GIR and Liz, KO4CK White for their continued excellent leadership of the RARS VE Team and who bring favorable recognition to the Team and to RARS.

Brian Young, KA9QJT - In appreciation for serving on the Hams Public Service – NC Team for several years

Wade Gutreuter, KW4EMG – In appreciation for serving on the RARSfest Admissions Team for several years.

Rick Kelly-Crapse, KB4TKQ – In appreciation as RARS Auctioneer for several years

**RARS President Dennis Keith, NC4DK delivered the plaque to
Jim and Beth and took this picture**



Plaque: Beth, KF4QMR and Jim Carroll, N4CAE
for hosting the RARS Field Day Exercise 1997 - 2016

March 14 RARS Meeting Door Prize Winners



Bill AK4BL and Gary N3GO

March 14 RARS Meeting Presentation



Ian, N0IAN presented a RARSfest update.

RARSfest will be April 14-15. Changes have been made to the front doors to improve early traffic flow. Dealers will have different-color armbands from the public. There will be a youth station this year. There will be the usual dinner at 7 pm Friday night, et cetera.

The New Hams meeting Continued

New HAM / Elmer meeting,

6:00 p.m. before the member meeting

Tadd Torborg, KA2DEW, Elmer Coordinator

The New Hams meeting is held every month before the regular RARs meeting. We'll try to start by 6pm. We try to address topics in a manner that will be of help to hams in their first year of operation.

Tadd / KA2DEW

tadd@mac.com

Raleigh NC FM05pv



Future RARS Presentations

4/11/2017	Dxpedition to St. Paul Island August 19 - 29, 2016	Will Roberts, AA4NC Murray Adams, WA4DAN
5/9/2017	Sky warn Training	Virginia Enzor, NC4VA
6/13/2017	RARS Field Day	Marty Young, W4MY

45th Annual RARSfest

ARRL Roanoke Division Convention

April 15, 2017 at NC State Fairgrounds

Online registration is now open for the Raleigh Amateur Radio Society annual RARSfest and 2017 ARRL Roanoke Division Convention. We are still holding prices as they have been for several years and again this year you can save a few dollars on tickets and tables by taking advantage of bargain prices with early registration by April 8th. Early pricing is \$8.00 for tickets and \$18.00 for tables. Tickets price at the door will be \$10.00 and tables at the door will be \$20 while they are available. To order online or see more information about tickets and tables visit <http://rars.org/rarsfest/>

RARSfest will again be located in the 100,000 sq. ft. Jim Graham Building at the North Carolina State Fairgrounds, 1025 Blue Ridge Rd. from 8:00 A.M till 3:00 P.M on April 15th (Easter Saturday). Attendance has been steadily increasing since we moved back to this venue and we have currently been running between 1700 and 2000 in ticket sales making RARSfest one of the largest hamfests in the state. RARSfest attendance in 2016 was the highest in recent years, as was the number of flea market tables and the number of commercial dealer booths.

RARSfest is an all indoor event with free parking, about 50 booths for commercial dealers, a huge flea market, meetings and forums, door prizes, a restaurant, walk-in License Exams, hands-on construction projects, QSL checking, and more. Some of the presenters and speakers include ARRL local, and state officials as well as a special representative from ARRL HQ staff. We are also expecting more youths and Scouts this year and expect to expanded our support in those areas.

Dealer and flea market setup will be after noon on Friday, and on Saturday morning from 6-8 AM. As always, there will be a welcome reception for vendors and dealers on Friday evening from 7-8 PM in the Hamfest building.

Please keep an eye on the RARSfest website for updated information as it becomes available at <http://rars.org/rarsfest>

Become an Amateur Radio Operator Technician Class

The Raleigh Amateur Radio Society will be conducting Technician Level Amateur Radio Licensing Classes at the Wake Tech Beltline Education Center located at 3200 Bush St, Raleigh, NC 27609.

The course will consist of four 5 hour classes and is designed to teach all of the information that is needed to earn the Technician Level Amateur Radio License and begin enjoying the hobby of ham radio.

Each class will begin at 8 AM and end at 1 PM on the following Saturdays: April 29, May 6, May 13 and May 20.

The license exam will be administered at 2 PM on May 20 after the conclusion of the final session.

Capacity is limited to 20 students and registration is required. Due to limited seating no walk-ins will be accepted. Students under age 12 must be accompanied by an adult.

Students must come with the textbook ARRL Ham Radio License Manual 3rd Edition

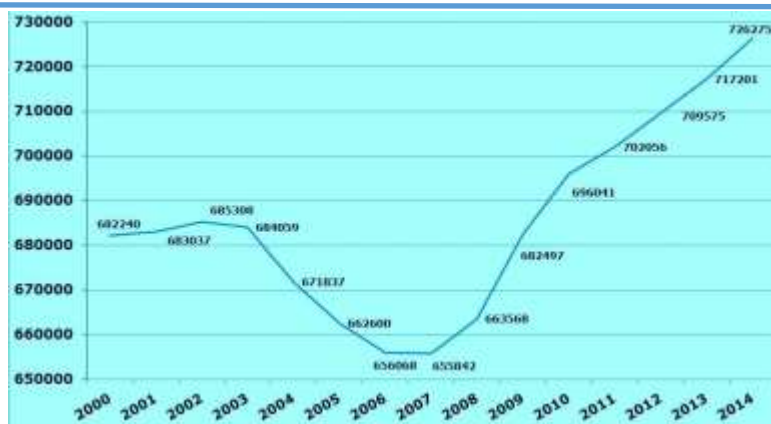
ISBN: 978-1-62595-013-0 which can be purchased at this link: <http://www.arrl.org/ham-radio-license-manual>

The non-refundable cost for the course is \$30 payable in cash at the first session. There is an additional fee of \$14 for the license test payable on the day of the exam.

The instructor is Mr. Curt Phillips whose amateur call sign is W4CP. Curt been licensed for 40+ years, holds an Amateur Extra class license, and has many years experience teaching amateur radio classes. He has taught technical courses at several area community colleges and for the NC State University Industrial Extension Service, NC A&T's Center for Energy Research and Technology as well as UNC-Charlotte and Virginia Tech.

To ask questions or register for the class please e-mail RARS Education Director Carl Davis at w8wz@aol.com

Ham population in the USA



Sporadic E propagation on 6 meters

The season for Sporadic E propagation on 6 meters usually opens from May to July. Sporadic E does not depend on sunspots. If you are not getting much action on HF during this lull in the sunspot cycle, try 6 meters. The DXMAPS website is excellent to spot activity. Here is a summary of 6 meter operations by mode.

CW: QSOs between U.S. hams are usually 50.090-50.100. DX is usually 50.080-50.110. To protect beacons, don't use 50.020-50.080. Note that per FCC rules, CW is the only authorized emission below 50.100 regardless of your license class.

SSB: QSOs between U.S. hams usually start at 50.125 and follow 5 KHz increments upward: 50.130, 50.135, etc. When the band is wide open, not only will the activity go higher than 50.150, it will also use intermediate frequencies (50.128, etc.). 50.100-50.115 is traditionally reserved for DX. However, DX stations are often found higher than 50.115. DX QSOs on 6 meters are often minimal, as if the operators were in a contest. This isn't unfriendliness. Conditions on 6 meters can change in seconds. The upside is, if the band appeared to be dead 15 minutes ago, it may be active now. If you establish a contact on 50.125 and wish to ragchew, it's polite to QSY upward to an open frequency. Something like 50.180 or 50.190 has a low likelihood of being in use already.

AM: 50.400 is the place to be. Yes, when the band is open you will hear DX on AM!

Digital: Predominantly JT65 and FSK144. Other digital modes are heard occasionally. Refer to published band plans.

FM: There is not much DX, but try the national simplex calling frequency, 52.525. Note that by convention, FM on 6 meters uses vertical polarization and all other modes use horizontal polarization.

Good DXing on the magic band!
Chuck Till, K4RGN

As we enter another season for openings on 6 meters the following links may help you stay abreast of these openings.

<https://n3tuq.com/dxmap.php>

<http://www.dxmaps.com/spots/mapg.php?Lan=&Frec=&ML=&Map=NA&HF=&DXC=ING2&GL=>

<http://www.dxmaps.com/spots/mapg.php?Frec=MUF>

73 Charlie, WA3UTC

Perma-Volt.

I saw this at Home Depot and wanted to pass it on to you. I had a breaker in my panel that would trip at random. No longer do I have that problem because I bought a new product offering from Home Depot.

Well, the attached photo is a low cost solution to that issue. Home Depot calls it the Perma-Volt. I may pick up several more on my next time over. This one works great.

Charles A. Davis Sr. WA3UTC



Useful & Interesting websites

RFI List. You can join this list for RFI Info. You can also search the data with out being a member.

<http://lists.contesting.com/mailman/listinfo/rfi>

CQ News Room

<http://cqnewsroom.blogspot.com/>

Learn to fly

This company is having an open house on Saturday April 8, 1 to 4 at RDU the airport.

<http://www.bluelineaviationllc.com/2017-open-house>

World Radio Day

Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on that day in 1925 that the International Amateur Radio Union was formed in Paris.

<http://www.iaru.org/world-amateur-radio-day.html>

Morse Code Day

Every April 27 is Morse Code Day.

<https://www.daysoftheyear.com/days/morse-code-day>

Turning Radius of an Antenna

<https://dxengineering.wordpress.com/2016/12/16/turning-radius-of-an-antenna/>

Midway and Kure Islands are Now Deleted DXCC Entities

<http://www.arrl.org/news/midway-and-kure-islands-are-now-deleted-dxcc-entities>

Two New Ham Bands.

<http://www.arrl.org/news/new-bands-fcc-issues-amateur-radio-service-rules-for-630-meters-and-2-200-meters>

NOAA Hurricane Awareness Tour Coming to RDU International Airport on Wednesday, May 10, 2017

<https://www.centralcarolinaskywarn.net/>

Email received at our website.

From: John Fallows VE6EY [mailto:ve6ey@fallows.ca]

Sent: Tuesday, March 21, 2017 4:24 PM

To: Webmaster

Subject: Arduino Ham Radio Starter Kit

Webmaster or Executive - Raleigh ARS, Inc

Earlier this year, I published a series of articles on my web site called the "Arduino Ham Radio Starter Kit". The purpose of this information is to encourage more hams and their clubs to engage with the local maker community as a gateway to amateur radio.

These articles explain Arduino basics in a ham radio context. They contain many suggestions about how amateurs can use Arduinos, as well as how a ham club can engage other makers in hobby activities.

Please take a moment to review the Arduino Ham Radio Starter Kit articles. If you find them to be useful, please consider passing these along to your members or contacts.

You can use these articles by linking them to your web site, Twitter feed, Facebook page or by e-mail.

The URL is:

<http://play.fallows.ca/wp/series/arduino-ham-radio-starter-kit/>

Thanks for your consideration. If you have any questions or suggestions, please contact me.

73 John Fallows VE6EY
Calgary, Alberta

Institutional Memory

Amateur Radio operators have accumulated a huge collective institutional memory of data, information, and knowledge about Amateur Radio techniques and technology. Although we strive to cover a wide range of current technologies and topics from that evolving memory in these pages, the typical article can span several pages and cover topics in extended depth. Full-length articles require much effort by our authors, and producing a long in-depth technical study might not be for everyone. Yet there are ideas out there, technical treasures, which might be described briefly. So how can we tap into this aspect of the institutional memory? How can we elicit QEX-level technical tidbits from our readers? Going forward a new Technical Note column debuts in QEX.

By all means, keep the full-length QEX articles flowing in, but let's also tap into our institutional memory and share a brief Technical Note that is perhaps several hundred words long plus a figure or two. Expand on another author's work and add to the Amateur Radio institutional memory with your technical observation. Let us know that your submission is intended as a Note.

Please send your Technical Note to the QEX Editor, Kai Siwiak, KE4PT, at gex@arrl.org

Tar Heel Scanner/SWL SIG group

The Tar Heel Scanner/SWL SIG group met twice in March.

On March 9th, seven members of the group toured television station WTVD Channel 11 in Durham. The tour was very informative and we got a chance to see the entire facility including the operations center where police scanners are monitored, the breaking news setting, the control room, and watch the 6:00 news live which was anchored by Tisha Powell, Steve Daniels and Chris Hohmann. AnnMarie Breen, the station Assignment Editor, led the tour.

We also met on March 20th at the Red Hot and Blue restaurant on Falls of Neuse Road in Raleigh. Nine people attended. There was a lot of interesting general discussion and Bruce Sherman went over the proceedings of the 2017 NASWA Winter SWL Fest in Philadelphia, PA from March 2-4.

Meetings are held on the third Monday of each month. We meet at 6:30 for dinner and the meeting begins at 7:30 and ends at 9:00. For more information and announcements about the upcoming meetings, see the Tar Heel Scanner / SWL SIG Yahoo group (<https://groups.yahoo.com/groups/tarheelsscanner>).

73, Kelly AE4FG

Raleigh Amateur Radio Society
Board of Directors Meeting Minutes
February 21, 2017

The Board of Directors of the Raleigh Amateur Radio Society met Tuesday, February 21, 2017, at Ridge Road Baptist Church. President Dennis NC4DK called the meeting to order at 7:20 p.m.

Present: Dennis NC4DK, Tom N4TL, John K3RHJ, Murray K4MHM, Chuck K4HF, Raymond NC4OO, Carl W8WZ, and Bob NC1X, also visitor Alan AB4OZ.

A quorum being present, the minutes of the January 10, 2017 Board of Directors meeting and the February 14, 2017 special Board of Directors meeting were approved as corrected by the Board.

Vice President: (Tom N4TL). We have a program for July. Daniel Marks KW4TI will present Recent Advances in RF Imaging Research for Aviation Security.

Treasurer: (Greg KE4PAX (by mail)): Current membership is 361 including 15 life/honorary members. A copy of the full report was distributed to the members present, who discussed the financial condition of the Society. Some questions arose which will be referred to Greg by Dennis NC4DK. For additional details, contact Greg or Dennis.

Secretary: Bob NC1X – The secretary gave a report on Larry K4LXV's condition. Larry is holding his own.

Directors' Reports:

Public Service (John K3RHJ): There are 4 events in the pipeline which will be announced closer to their actual dates.

Education (Carl W8WZ): Carl is developing a schedule for the upcoming year.

PIO (Charles KM4KMT): No report

Immediate Past President (Murray K4MHM): No Report

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Director at Large (Joanne AA3N): Not present, no report

Director at Large (Marty W4MY): Not present, no report

Director at Large (Raymond NC4OO): Raymond requested that his job description not include moving chairs and tables. The idea of a permanent roster was discussed. Dennis suggested rotating volunteers. Volunteers can usually be drafted from early arrivals and the New Ham Class. Four of the new Patches were sold at the last board meeting. Murray sold 15 at the February 14 membership meeting.

Other Reports:

Scouting coordinator (Charles KM4KMT – not present): Murray K4MHM reported a reduction in scouting activity after a staff change in the scout troop.

FM Repeater Chair (Karl W4CHX): Not present, no report

Exciter Chair (Tom N4TL): The deadline for the next Exciter is March 4.

Food Service Chair (Bill AK4BL): Not present, no report

ARRL Liaison: (Chuck K4HF): We have an ARRL speaker for RARSfest, Bob Inderbitzen, NQ1R, ARRL Marketing Manager .

ARRL Section: (Karl W4CHX): Not present, no report

Webmaster (Hank K4HM): Not present, no report

RARSfest Chair (Ian N0IAN): Not present, no report

Field Day Chair (Marty W4MY): Not present, no report

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NC QSO Party (Marty W4MY): Not present. The QSO Party is this weekend, Sunday for N.C., Saturday for S.C. Carl W8WZ will be at VOA.

W4DW/W4RNC Trustee (Jeff AC4ZO): Not present, no report

Net Manager (Mary KG4OQA): Not present, no report

Awards Committee (Chuck K4HF): Chuck recommended an award to Jim & Beth Carroll for hosting field day at their farm from 1997 through 2016. He repeated his request for award suggestions from all members.

Old Business:

The board discussed ARES and AUXCOMM.

A motion was made to update the Wake ARES and AUXCOMM links in the upper right part of the web page so that they have latest info from the respective organizations. The motion was seconded and approved.

A motion was made to include an "emergency services" link on the left side of the RARS web page that points to the script, "Amateur Radio Response to Emergencies", which was distributed to the Board members in attendance, and which can be obtained from John K3RHJ. The motion was seconded and approved.

New Business: none

The next Board meeting will be Tuesday, March 21, at 7:00 p.m. at the church.

The meeting was adjourned by President Dennis at 9:20 p.m.

Robert E Chapman, NC1X
RARS Secretary

MINUTES
Raleigh Amateur Radio Society
General Membership Meeting
March 14, 2017

The monthly membership meeting of the Raleigh Amateur Radio Society met at the Ridge Road Baptist Church in Raleigh. The meeting was called to order by President Dennis, NC4DK, at 7:33 p.m.

There were 45 members present, which constituted a quorum.

A quorum being present, a motion to accept the minutes of the February 14, 2017 meeting, as published in the Exciter, was made, seconded and approved.

Officers' Reports:

President: Dennis NC4DK reviewed the calling of the Special Board meeting of February 14, 2017, emphasizing that it had been discussed at the February Board of Directors' meeting.

Vice President: Tom N4TL – Next month's presentation will be by Will, AA4NC, about the August 2016 St. Paul Island DXpedition.

Treasurer: Greg, KE4PAX, (not present) submitted a Treasurer's Report (attached to file) which shows 361 members this month, and other details of the Society's financial condition. Anyone desiring additional treasury information may contact Greg for details.

Secretary: Bob NC1X reported that Larry Young K4LXV is at home and would appreciate a card .

Continuing Announcements:

The RARS Dinner takes place monthly on the first Tuesday (next: April 4th) at 6:30 p.m., at the Golden Corral, 6129 Glenwood Ave.

The RARS Board meeting takes place monthly on the third Tuesday (next: March 21st) at 7:00 p.m. in a conference room here at the Church. Members are invited to attend.

An After-meeting gathering takes place after each Membership meeting, at Applebee's, at Hillsborough and Gorman Streets.

A New Ham / Elmers meeting with new hams and anyone interested takes place before each membership meeting, at 6:00 p.m. at the church. Today's activity included a presentation on the Worked All States (WAS) award by Tom N4TL.

Other announcements:

Dennis NC4DK announced that of those hams who participated in the ARRL's "National Parks on the Air" event, tied for 34th nationally and first in NC is our Tom Lewis N4TL. Virginia NC4VA also

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placed well.

Board & Committee Reports:

Public Service (John K3RHJ): The Public Service calendar is at www.rars.org/public-service.php .
Odyssey of the mind was supported recently.

Education Director (Carl W8WZ): Carl announced dates for the next Technician class. He needs additional instructor volunteers so we can have more classes.

Field Day (Marty W4MY): Field day will be June 25th at the Police Club. If you want to volunteer contact Marty.

FM Repeater (Karl W4CHX): No report

N.C. QSO Party (Marty W4MY): Was February 26th . We have about 320 logs. Synergy with South Carolina was great.

At Large Directors:

Marty W4MY: no report

Joanne AA3N: no report

Raymond NC4OO: no report

Old Business: none.

New Business: none.

Guests: Ken N4ZBB, Ken announced an effort to contact ARISS (space station); KB4MDZ Chuck; Peter K2AXI is a new member; Tara KM4ZSZ; and Tom NC4TS;

Door Prizes: Door prizes were won by Gary N3GO and Bill AK4BL.

Program: RARS Birthday:

Joanne AA3N brought a birthday cake for the Society's 47th Birthday.

March 2017 RARS AWARDS Presented March 14, 2017

Presenter:

Dennis Keith, NC4DK

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Plaque:

Jim, N4CAE and Beth, KF4QMR Carroll, for hosting the RARS Field Day Exercise 1997 - 2016

Certificates:

Joe, WA4GIR and Liz, KO4CK White for their continued excellent leadership of the RARS VE Team and who bring favorable recognition to the Team and to RARS.

Murray Merner, K4MHM – In appreciation for heading the RARS Shirt/Patch Project 2015 – 2016

Joanne Mars, AA3N – In appreciation as RARS Food Service Chairperson 2013 - 2016

Bill Mars, AK4BL – In appreciation as RARS Director at Large 2013 – 2016

Dennis Keith, NC4DK – In appreciation for serving as the RARS Field Day Chairman for 2014-2016

Brian Young, KA9QJT - In appreciation for serving on the Hams Public Service – NC Team for several years

Dennis Mason, WZ0Q – In appreciation for serving on the RARSfest Team for several years

Wade Gutreuter, KW4EMG – In appreciation for serving on the RARSfest Admissions Team for several years.

Rick Kelly-Crapse, KB4TKQ – In appreciation as RARS Auctioneer for several years

Raymond LeFrancois, NC4OO – In appreciation for tirelessly serving as the RARS Good Will Ambassador

Dennis recognized all who served in a Public Service event, all VEs, and all Net Controllers during the past year.

RARSfest UPDATE.

Ian, N0IAN presented a RARSfest update. RARSfest will be April 14-15. Changes have been made to the front doors to improve early traffic flow. Dealers will have different-color armbands from the public. There will be a youth station this year. There will be the usual dinner at 7 pm Friday night.

Continued on the next page

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We are the ARRL Roanoke Division convention this year. The division Director will attend.

The meeting was adjourned by President Dennis at 8:42 p.m.

Respectfully Submitted,
Robert E Chapman, NC1X
RARS Secretary

Remember These Measurements?

IF YOU are familiar with the different units of measurement, how widely can you apply them? See how many of the following twelve numbers you can place correctly in the spaces.

29.5	62.5	1,100	239,000
39	256	25,000	93,000,000
29,141	459.4	186,000	
		6,000,000,000,000,000,000,000	

- _____ 1. Number of miles around the earth.
- _____ 2. Number of feet per second sound travels in air.
- _____ 3. Number of vibrations per second of middle C on the piano.
- _____ 4. Number of miles from the earth to the moon.
- _____ 5. Number of degrees below zero Fahrenheit of absolute zero.
- _____ 6. Height of barometer in inches under normal conditions.
- _____ 7. Number of miles per second light travels.
- _____ 8. Mass or weight of the earth in tons.
- _____ 9. Distance in miles from earth to sun.
- _____ 10. Length in inches of a pendulum that beats seconds.
- _____ 11. Weight in pounds of one cubic foot of water.
- _____ 12. Height of world's highest mountain in feet.

Current Public Service Opportunities

The RARS website has an up-to-date list of Public Service events and a form that can be filled out to volunteer. <http://www.rars.org/public-service.php>

The Ham Public Service Net. We will use the following repeaters in the Carolina 440 Link System:

441.725(+)(100) – Raleigh, NC Hub
443.450 (+)(100) – Cane Mt., Snow Camp, NC
444.325 (+)(100) – Holly Springs, NC
444.375 (+)(100) - Henderson, NC
444.550 (+)(100) – Coats, NC
444.775 (+)(100 – Cary, NC
444.875 (+)(100) – Wendell, NC
145.330 (-)(100) – Goldsboro, NC
442.250 (+)(107.2) - McCain/Southern Pines, NC
444.200 (+)(179.9) - Johnsonville, NC
444.025 (+)(100) - Benson, NC
442.425 (+)(100) - Buxton, NC

(The net is also accessible through IRLP Reflector 9210)

The Ham Public Service Yahoo Group link is: [Ham Public Service North Carolina](#)

Choose the event(s) for which you would like to volunteer and complete the sign-up form at the RARS website .. note... one form for EACH event that you are volunteering. We are glad you are back.

*** TO VOLUNTEER FOR ANY OF THESE EVENTS ON THE NEXT PAGE FILL OUT THE FORM AT <http://www.rars.org/public-service.php>**

Current Public Service Opportunities continued

2017 WALK MS

April 8, 2017 - Saturday - Raleigh, NC

This is a walking event, one or three miles around PNC Arena. Sponsored by the MS Society. Shadows and Rest Stop Hams are typically needed at 7:30 AM, with the event wrapping up around noon.

* Location: PNC Arena, 1400 Edwards Mill Rd., Raleigh, NC 27607

* Ham Coordinator: Brian Young (KA9QJT)

* Website: [MS Walk](#)

* **TO VOLUNTEER FILL OUT THE FORM AT <http://www.rars.org/public-service.php>**

2017 RARSfest

April 15, 2017 - Saturday - Raleigh, NC

2017 Raven Rock Ramble

May 7, 2017 - Sunday - New Hill, NC

This bike event has multiple routes from 10 to 100 miles, requiring SAGS, as well as Hams assigned to Rest Stops. There will be approximately 700 riders participating and raising funds for the UNC Kidney Center.

* Location: Harris Lake County Park, 2112 County Park Dr., New Hill, NC 27562

* Ham Coordinator: John Stone (K3RHJ)

* Website: [Raven Rock Ramble](#)

* **TO VOLUNTEER FILL OUT THE FORM AT <http://www.rars.org/public-service.php>**

RARS Classified

AI4TN Estate sale - Greenville, NC

Posted March 16th, 2017 by: W4YDY

Contact: w4ydydave@suddenlink.net

*Icom IC-718 HF Xcvr 160-10M, 100W \$550

*Icom IC-V8000 2M FM Xcvr, 75W, aircraft band receive, \$100

MFJ-4225MV PS with meters, \$60

*Micronta Multitester VOM \$15

Radio Shack PRO-2034 Scanner \$40

*Rigblaster Nomic, Rig to Soundcard \$30

*Rigblaster Plus - Cabling for Icoms \$110

*In original boxes.

MFJ 949E HF Antenna Tuner with dual needle meter

Posted March 13th, 2017 by: K4HF

Contact: k4hf@arrl.net

It covers 160 through 10 meters, 300 Watts, dummy load built in, antenna switching for coax, random wire or balanced feed lines. Excellent condition - \$85. Contact me by e mail, preferred, or (919) 872-6555. Thanks, Chuck

Henry 2K amplifier and other equipment

Posted March 6th, 2017 by: K4LXV

Contact: k4lxv@twc.com

Henry 2K amplifier w/ 2 3-400Z tubes in final. Peter Dahl Plate xfmr. Operates on 110 or 220 volts \$800.

Gap Eagle 40-10 Meter Vertical antenna w/tilt over base. You must remove. \$100

Ameritron ARB-704 rig to amplifier interface \$35

EZ Way RBX 40 crank up tilt over tower on ground. Missing hardware and cable. You can omit ground post and use two brackets to mount to a wall. Make offer.

All equipment have manuals. Some have boxes.

2 ea 3-400Z used good tubes in boxes \$150 for the pair.

Larry Young K4LXV 919-612-1447